

### **Abstract of the Disclosure**

System and method for creating rich timbre performance, composition, and recording environments for an electronic musical instrument with multiple vibrating elements providing multi-channel output. The instrument produces at least one group instrument output signal responsive to the vibrations of a plurality of vibrating elements and at least two individual instrument output signals each responsive to a unique vibrating element. An individual signal may be applied to pre-filtered pitch-transposing signal processors to add stable, rich, responsively re-enforcing bass tones. Another individual signal may be applied to emphasis signal processing to emphasize a particular melodic line, note in a chord, etc. A wide variety of traditional and novel rich-timbre signal processing techniques may also be employed. The invention may be used individually or in conjunction with other signal processing and signal synthesis techniques in creating new forms of rich musical timbres and spatially-distributed timbre constructions.

